



## UNITED STATES DEPARTMENT OF COMMERCE

## Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	H	ATTORNEY DOCKET NO.
09/667,301	09/25/00	WATANABE		

QM22/0521

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HUNTER EXAMINER

ART UNIT PAPER NUMBER

4  
05/21/01

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/667,301	WATANABE ET AL.
	Examiner	Art Unit
	Alvin A Hunter	3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 September 2000.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 18) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (USPN 5830085) in view of Shama (USPN 4848770).

Higuchi et al. discloses a three-piece golf ball with a solid core, a mantle, and a cover (See Abstract). The solid core is disclosed having a distortion, or compression, of 2.3 to 5.5 mm and a surface hardness higher than the center hardness by 5 to 25 degrees on the JIS-C hardness scale (See Abstract), wherein the solid core is made of 1, 4-cis-polybutadiene as a base rubber, a crosslinking agent, a co-crosslinking agent, and an inert filler (See Column 3, lines 51 through 67, and Column 4, 1 through 7). The difference in the surface and center hardness is to provide the golf ball with good hitting feel and restitution (See Column 3, lines 19 through 34). The intermediate layer is disclosed being made of an ionomer resin, which is a thermoplastic material, and a

thickness of 0.2 to 3mm (See Column 4, lines 44 though 59). The cover is disclosed as having a Shore D Hardness of up to 95 degrees and is made of materials well known to the art, in which ionomer resins are mostly preferred (See Column 5, lines 24 through 55). Higuchi et al. failed to disclose the compression ratio of the mantle and core being at least 0.98 and at least 1.00. Shama discloses a non-wound three-piece golf ball having a center, an intermediate mantle, and cover (See Abstract). In Table 5, Shama discloses a center component having a PGA compression of 40 to 90 (See Column 5, lines 17 through 25). In Table 6, Shama discloses a mantle also having a PGA compression of 40 to 90 (See Column 5, lines 26 through 35). Computing a compression ratio between the mantle to the core results in a ratio of at least 1.0, which is in the compression ratio range disclosed by the applicant. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a compression ratio disclosed by Shama with the invention of Higuchi et al. in order to prevent the core from losing its restitution and hitting feel.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:30PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeanette Chapman, can be reached on (703) 308-1310. The fax phone

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number for the organization where this application or proceeding is assigned is 703-308-7768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.



JEANETTE CHAPMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700